

Begin

REEL
489
SAUKA, O.K.

Card
SAUKA, G. K.: Master Tech Sci (diss) -- "Investigation of the effectiveness of drainage of temporarily flooded argillaceous and clay soils in the Latvian SSR as a function of the degree of drying". Riga, 1958. 29 pp (Min Agric USSR, Latvian Agric Acad), 220 copies (KL, No 5, 1959, 151)

SAUKA, Ya. Ya.

SAUKA, Ya. Ya. -- "Crystalline Modification of Lead Fluoride." Latvian State U, 1947.
In Latvian (Dissertation for the Degree of Candidate of Chemical Sciences)

SO: Izvestiya Ak. Nauk Latvyskoy SSR, No. 9, Sept., 1955

SAUKA, YA.

Sauka, Ya. and Ozols, Ya. "Roentgenographic research on crystal structures of tetra-thiocyanomercury (II) of copper (II)," Izvestiya Akad. nauk Latv. SSR, 1948, 10, p. 133-36 - In Latvian language - Resume in Russian - Bibliog: 7 items

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, no. 3, 1949)

FA149T19

USSR/Chemistry - Lead Fluoride
Crystals, Modifica-
tions

Aug 49

"Crystalline Modifications of Lead Fluoride,"
Ya. Sauka, Chem Faculty, Latvian State U, 5 1/2 pp
"Zhur Obschch Khim" Vol XIX, No 8

Varying rates in reaction between lead ions and
fluorine ions in solution are responsible for
formation of rhombic and cubic crystals. Former
type is of rhombic dipyramide class. In addition
to these two types of crystal from lead nitrate and
ammonium fluoride solutions, a complex crystal of

149T19

USSR/Chemistry Lead Fluoride (Contd)

Aug 49

Lead fluoride and lead nitrate is formed. It is
unstable, and its gradual recrystallization re-
sults in formation of two lead fluoride types.
Submitted 23 Apr 48.

149T19

180T14

USSR/Chemistry - Fluorides of Heavy Metals Jan 51

"Lattice Precision Constants and Coefficients of Thermal Expansion of Lead Fluoride," Ya. Ya. Sauka, Anal Lab Latvian State U, Riga

"Zhur Fiz Khim" Vol XXV, No 1, pp 41-48

Detd precision const of lattices of cu and rhombic modifications of lead fluoride by asym method from X-ray photographs of monocrystals. From precision const at 3 different temp calcd linear (in direction of all 3 cryst axes) and cu coeff of thermal expansion.

LC

180T14

7
Potassium tetraborate as base in acidimetry. J. S. S. and J. Putnam (Calvin State Univ., Bira). Z. Anal. Chem. 11, 698-71 (1956). B_2O_3 was synthesized from H_3BO_3 , 10g; K_2CO_3 , 60.5 g, and H_2O , 100 ml. Properly crystallized and twice recrystallized it had the compn. $\text{K}_2\text{B}_4\text{O}_7 \cdot 4\text{H}_2\text{O}$. The H_2O of crystal. was driven off only at 300° . It was dried safely at 65° without any loss of H_2O . The tetraborate kept in air did not change for a long time. It compared favorably with borax and Na_2CO_3 for standardizing HCl solns. It is recommended to use methyl red or a mixt. with bromocresol green for 0.1N HCl and a mixt. of methyl red and methyl blue for more dil. solns. The equiv. wt. of $\text{K}_2\text{B}_4\text{O}_7 \cdot 4\text{H}_2\text{O}$ is 162.70. M. H. H. 7

Chem

Rm if

AUTHOR: Sauka, Ya. Ya.

SOV/70-3-1-18/26

TITLE: Crystals of Potassium Tetraborate Tetrahydrate,
 $K_2B_4O_7 \cdot 4H_2O$ (Kristally tetragidrata kaliyevogo
 tetraborata $K_2B_4O_7 \cdot 4H_2O$)

PERIODICAL: Kristallografiya, 1958, Vol 3, Nr 1, p 93 (USSR)

ABSTRACT: Crystals of $K_2B_4O_7 \cdot 4H_2O$ were obtained from a hot solution of boric acid (100 g in 100 ml H_2O) by neutralisation with K_2CO_3 (60 g). The compound was recrystallised at room temperature by the evaporation of a solution of 10-20 g $K_2B_4O_7 \cdot 4H_2O$ in 100 ml H_2O . Crystals were examined optically and corresponded to the class $D_{2h} = mm2$ showing principally the forms $\{001\}$, $\{101\}$, $\{011\}$, $\{110\}$.

The unit cell dimensions were found from rotation photographs about the three principal axes to be $a = 6.83$, $b = 11.77$ and $c = 12.80$, all ± 0.02 Å. The ratios agreed to 1% with the optical results. Using the measured

Card1/2

SOV/70-3-1-18/26

Crystals of Potassium Tetraborate Tetrahydrate, $K_2B_4O_7 \cdot 4H_2O$

s.g. of 1.941 (Zh.Anal.Khim., 1956, Vol 11, p 668) Z is found to be $3.94 \approx 4$.

There are 1 table, 1 figure, and 3 references, 1 of which is Soviet and 2 German.

ASSOCIATION: Latviyskiy gosudarstvennyy universitet,
khimicheskiy fakul'tet
(Latvian State University, Department of Chemistry)

SUBMITTED: January 12, 1957

Card 2/2

AUTHORS: Sauka, Ya. and Apinit, S. SOV/70-4-2-33/36
 TITLE: Crystals of Lead Selenate (Kristally selenata svintsa)
 PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 2, pp 262-263 (USSR)
 ABSTRACT: Crystals of PbSeO_4 were produced by allowing solutions of K_2SeO_4 and $\text{Pb}(\text{NO}_3)_2$ to diffuse very slowly into each other for some 4 months. Needle-shaped crystals up to 2 mm long were formed. Analysis confirmed their composition. Optical goniometry showed them to be monoclinic prismatic with $a:b:c = 0.942:1:0.976$ with $\beta = 103^\circ 04'$. X-ray measurements (from layer-line spacings) gave $a = 7.14 \pm 0.01$, $b = 7.37 \pm 0.01$, $c = 6.94 \pm 0.01$ kX; that is $a:b:c = 0.969:1:1.042$ (sic - ratio should be $0.969:1:0.942$). The density from the literature is 6.37 giving $Z = 4$. Further rotation photographs showed the lattice to be primitive.

Card 1/2

Crystals of Lead Selenate

SOV/70-4-2-33/36

There are 1 figure, 1 table and 5 references, 3 of which are Soviet and 2 French.

ASSOCIATION: Rizhskiy politekhnicheskiy institut
(Riga Polytechnical Institute)

SUBMITTED: November 17, 1958

Card 2/2

SAUKA, Ya.Ya.; KARKLIN', A.Yu.

Precision lattice parameters and thermal expansion coefficients for
 $\text{Co}[\text{Hg}(\text{SeCN})_4]$ crystals. Kristallografiia 6 no.5:775-777 S-0 '61.
(MIRA 14:10)

1. Rizhskiy politekhnicheskiy institut.
(Cobalt compounds) (Crystal lattices)

APINITIS, S.K.; SAUKA, Ya.Ya. [Sauka, J.]

Double selenates $K_2SeO_4 \cdot PbSeO_4$ and $(NH_4)_2SeO_4 \cdot PbSeO_4$.
Kristallografiia 10 no.2:250-251 Mr-Apr '61

(MIRA 18:7)

1. Rzhskiy politekhnicheskii institut.

SAUKA, Ya.Ya.

Potassium calcium, potassium strontium, and potassium barium
octaborate crystals. Zhur. strukt.khim. 1 no.4:453-457 N-D
'60. (MIRA 14:2)

1. Rizhskiy politekhnicheskii institut.
(Potassium calcium borate) (Potassium barium borate)
(Potassium strontium borate)

SAUKEVICHUS, A. F.

SAUKEVICHUS, A. F.- "Pneumatic-mechanical Dosing of the Supply of Fuel in Carburetors of Self-propelled Tractor Engines." Min of Higher Education USSR, Lithuanian Agricultural Acad, Kaunas, 1955 (Dissertations For Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

SAUKEVICHUS, B. P., Cand Agric Sci (diss) -- "The effect of deep plowing and burrowing on the fertility of mineral soils under conditions of the Lithuanian SSR". Kaunas, 1960. 24 pp (State Committee on Higher and Inter Spec Educ of the Council of Ministers Lith SSR, Lith Agric Acad), 130 copies (KL, No 10, 1960, 134)

Saukhbat, I.G.

FADDEYEV, Boris Vasil'yevich; SAUKHAT, I.G. redaktor; LUCHKO, Yu.V.,
redaktor izdatel'stva; ZEF, Ye.M., tekhnicheskiiy redaktor.

[Organization of strip mining] Organizatsiya otkrytykh gornykh
rabot. Sverdlovsk, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i
tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1957. 289 p.

(MIRA 10:11)

(Strip mining)

NIKITIN, Yu.V.; SAUKHATA, I.S.

Lithium pegmatites in northern Karelia. Trudy Lab. geol. dokem.

no.7:109-119 '57.

(MIRA 11:3)

(Karelia--Pegmatites)

STROITELEV, I.A.; SAUKHATAS, I.S.; KASHAYEV, A.A.

Chemical and metallurgical investigation of converter slags
from the Balkhash copper smelting plant. Sbor.trud. VNIITSVETMET
no.9:136-147 '65. (MIRA 18:11)

STROITELEV, I.A.; SAUKHATAS, I.S.

Phase constitution of zinc sinters. Sbor.trud. VNIITSVETMET
no.9:148-158 '65. (MIRA 18:11)

SAUKOV, A.

Radioactive elements of the earth. Nauka i tekhn mladezh 16
no.10:55 '64.

CA

Antimony and molybdenum deposits near Novotroitsk on the Unde River, Transbaikalia. A. A. SAKHONKO. *Compt. rend. acad. sci. U. R. S. S.* 1930A, No. 13, 345-9. — Ore samples taken from these deposits analyzed 10-30% Sb₂S₃, hand-picked ones as high as 67.9% Sb₂S₃, with 0.52 g. Au per ton. Molybdenite deposits were found in the same district but were rather poor.

Dokl. AN SSSR
S. L. MADORSKY

538-31.4 METALLURGICAL LITERATURE CLASSIFICATION

CA

PROCESSING AND PROPERTIES INDEX

COMMON ELEMENTS

COMMON VARIABLES INDEX

Antimony-mercury deposits of Tschauway. A. Saukov. *Abh. Pamir-Expedition 1930. III. Akad. Wiss. Leningrad* 19-33(1932); *Neues Jahrb. Mineral. Geol., Referate* 11, 1934, 707.—The ores contain 1.2% Hg and 0.65% Sb. J. F. Scharrer

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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12. AK. N. S. S. R.
Ser. Geol.)

The energy of the crystal lattice and its role in geochemistry. A. A. Sokolov. *Bull. acad. sci. U. R. S. S. Ser. geol.* 1937, 491-500; *Chem. Zentr* 1938, I, 44.—The various methods of obtaining the lattice energy are compared including the cyclic process of Born and Haber, the theoretical formulas of Born and of Kapustinaki, and the energy coeffs. of Fessenden (cf. C. A. 30, 7505^g, 1937^g). The last method makes possible an approx. detn. of the lattice energy even for complicated systems, e. g., the silicates. The crystal series in dissoed. solns. corresponds to the decrease in energy, taking into consideration the concn., the lattice symmetry, the geometry of the energy distribution (mol. or coordination lattice), and the formation of complex ions. In addn. to the energy coeff., a new function (the "paragen") is introduced for each ion which designates the position of a given association in the paragenetic series. From the paragenesis of the ions that of the assocns. is obtained as an additive function. As examples of the application of the geoenergetic theory, the crystn. of silicates and sulfides is discussed, with explanation of the geochem. concn. distribution, the polar isomorphism, the "forbidden" assocns., etc., being offered. M. G. Moore

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
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<p>A nephelometric method for determining small quantities of mercury. A. A. Saukov. <i>Compt. rend. acad. sci. U. R. S. S. 26, 373-5(1938)</i> (in English).---The pale pink, very slightly sol. mercuric reineckate, $Hg(Cr(NH_4)_2(SCN)_4)_2$, can be used for the detection of Hg^{++} down to 0.2 γ per cc. in 1:3 HNO_3. Only Au, Ag and Tl interfere (cf. Mahr, C. A. 30, 3749). Larger ppis. can be dried at 110° or ignited to Cr_2O_3 and weighed. In the presence of only a slight excess of the pink reagent (NH_4 reineckate) the nephelometer gives good results; these were best when 0.5-3 γ per cc. was used. The method is particularly useful for the detn. of Hg in minerals and rocks. From these, Hg can be distd. by heating in a 850° in a quartz tube and condensing the vapors in a cooled receiver; the Hg is dissolved in HNO_3 and the soln., or a part of it, analyzed as above. D. W. Pearce</p>																																																			
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PROCESSING AND PRINTING UNIT																									
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<p>CH</p> <p>Mercury in barytes. A. A. Saikov. <i>Compt. rend. acad. sci. U. R. S. S. S.</i> 22, 254-6 (1939) (in English); cf. <i>C. A.</i> 33, 20051. — Certain samples of Russian barytes showed the presence of Hg in quantities varying from $1.9 \times 10^{-4}\%$ to $2.4 \times 10^{-4}\%$, when tested by Nezakkevich's spectrometric method. Since no cinnabar inclusions were found and since aqua regia did not ext. the Hg quantitatively, the presence of univalent Hg in the BaSO_4 crystal lattice was indicated. BaSO_4 pptd. from mixed aq. solns. of $\text{Ba}(\text{N})_2$ and HgNO_3 by Na_2SO_4 contained Hg which could not be extd. by aqua regia. Bivalent Hg was never taken up during pptn. of BaSO_4. George Ayers</p> <p>7</p> <p>Inst. Geol. Sci., A.S. U.S.S.R.</p> <p>ASB-31A METALLURGICAL LITERATURE CLASSIFICATION</p>																									
<p>SEARCHED INDEXED</p> <p>SERIALIZED FILED</p> <p>APR 1961</p> <p>U.S. DEPT. OF COMMERCE</p> <p>LIBRARY OF CONGRESS</p>																									

SAUKOV, A. A.

"The Clarke of Mercury in the Earth's Crust," Dokl^{SSSR}AN USSR, 32, No 5, 1941.
Inst. Geo. Sci., AS USSR

SABROV, A. A.

USSR/Geology

1947

Mineral Deposits - Mercury

"On the Mercury Deposits of Western Siberia" by V. A. Kuznetsov, A. A. Saukov,
1 p

SSSR,

"Izv Akad Nauk USSR Ser. Geol", No 2

Locations of deposits at Salair, Ala-tau, Minusinsk, Kuznets Basin, Altaye-Sayansk.
A summary of a monograph.

PA 1T115

SAUKOV, A.A.; SHCHERBINA, V.V., otvetstvennyy redaktor; SEMENOVA, M.V.,
redaktor izdatel'stva; BORISOV, A.S., tekhnicheskiy redaktor

[Geochemistry] Geokhimiya. Izd. 2-oe, ispr. i dop. Moskva, Gos.
izd-vo geol. lit-ry, 1951. 381 p.

(Geochemistry)

(MLRA 9:7)

[Microfilm]

SAUKOV, A. A.

USSR/Geophysics - Obituary

May/Jun 52

"Boris Borisovich Polynov (1877-1952)," Obituary by
A.A. Saukov and A.I. Perel'man

"Iz Ak Nauk, Ser Geolog" No 3, pp 3-5

In his 75th year, Boris Borisovich Polynov, outstanding scientist, and academician-Communist died on 16 Mar 52. He was distinguished by his classical research in agriculture, geochemistry and geography.

240756

SAUKOV, A. A.

Geochemistry

"Geochemistry." Reviewed by A. I. Perel'man.
Priroda 41, No. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

SAUKOV, A. A.

Geochemistry

"Geochemistry". , Reviewed by V.I. Lebedev, Zap.Vses. min. ob. 81 No. 1,
1952

Monthly List of Russian Accessions, Library of
Congress, July 1952. Unclassified

1. SAUKOV, A. A.
2. USSR (600)
4. Mineralogy
7. "Selected works." Vol. 1 A. Ye. Fersman. Reviewed by A. A. Saukov. Sov kniga No 1 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SAUKOV, A.A.

Concerning A.S.Uklonskii's article "Some problems of current mineralogy and geochemistry." Izv. AN SSSR. Ser.geol. no.6:50-53 M-D '53. (MLRA 7:1) (Mineralogy) (Uklonskii, Aleksandr Sergeevich, 1888-)

SAUKOV, A.A.

USSR/Miscellaneous - Literature

Card 1/1

Author : Saukov, A. A.
Title : Criticism and Bibliography
Periodical : Vest. AN SSSR, Ed. 2, 132-136, Feb/1954
Abstract : The article contains comprehensive critical reviews of the selected works of A. E. Fersman, pertaining to genetic mineralogy and geochemistry.
Institution :
Submitted :

SAUKOV, A. A.

USSR/ Scientific Organization

Card 1/1 : Pub. 124 - 20/35

Authors : Saukov, A. A., Memb. Corresp. of Acad. of Sc. USSR

Title : Problems of mineralogy and geochemistry

Periodical : Vest. AN SSSR 7, 77-79, July 1954

Abstract : Minutes of the All-Union Conference of mineralogists and geochemists, held on April 5 - 11, 1954 at the Geological Institute of the Acad. of Sc. USSR.

Institution :

Submitted :

SAUKOV, A. A.

"Radiohydrogeological Method in Prospecting for Uranium Deposits," a paper
presented at the Atoms for Peace Conference, Geneva, Switzerland, 1955

SOKOLOV, Vasily Andreyevich, professor; SAUKOV, A.A., otvetstvennyy
redaktor; MIYESSEROV, K.G., redaktor izdatel'stva; SOMOROV, B.A.,
tekhnicheskiy redaktor

[Migration of gas and petroleum] Migratsiya gaza i nefi. Moskva,
Izd-vo Akademii nauk SSSR, 1956. 352 p. (MLBA 9:7)

1. Chlen-korrespondent AN SSSR (for Saukov)
(Gas, Natural) (Petroleum)

15-57-4-4668

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 4,
p 97 (USSR)

AUTHOR: Saukov, A. A.

TITLE: ~~Geochemical Works of A. E. Fersman~~
Geochemical Works of A. E. Fersman (O geokhimicheskikh
rabotakh A. Ye. Fersmana)

PERIODICAL: V sb: vopr. geolhimii i mineralogii. Moscow, 1956,
pp 9-18.

ABSTRACT: Bibliographic entry

Card 1/1

SAUKOV, A.A. (Moskva).

Geochemistry of iron. Khim.v shkole 11 no.6:7-15 M-D '56.

(Iron)

(MLRA 9:12)

(Geochemistry--Study and teaching)

~~SAUKOV, A.A.~~

The first all-Union conference on geochemical methods of
prospecting for ore deposits. Izv.AN SSSR. Ser.geol. 21 no.9:
126-128 S '56. (MLRA 9:11)

(Geochemical prospecting)

SAUKOV, A.A.

26-10-7/44

AUTHORS: Alimarin, I.P. and Saukov, A.A., Corresponding Members of the USSR Academy of Sciences, and Baranov, V.I. and Koval'skiy, V.V., Professors

TITLE: Problems of Contemporary Geochemistry (Problemy sovremennoy geokhimii)

PERIODICAL: Priroda, October 1957, No 10, pp 53-62 (USSR)

ABSTRACT: The article deals with the activities of the Institute of Geochemistry and Analytical Chemistry Imeni V.I. Vernadskiy of the AN USSR (Moscow). Contemporary geochemistry researches the distribution and reactions of chemical elements in the various strata of our planet, the origin and absolute age of rocks and deposits and the migration and concentration of elements under the influence of organisms. This young science is closely related to its initiators, Academicians V.I. Vernadskiy and A.E. Fersman. The Institute has 12 laboratories in isotopes, radiochemistry, biogeochemistry, radiogeochemistry, rare elements, geochemistry of single elements, magmatogenic processes, mineralogical structures, organic reagents, spectral analyses, sedimentary rocks and crystallo-chemistry.

Card 1/2

SHCHERBAKOV, D.I., akademik; BABAT, G.I., prof. doktor tekhn. nauk; ZHELTENKOV, V., inzh.; VERD'YE, Zhan, zhurnalist (Frantsiya); RUBASHEV, B.; GRIGOR'YEV, S., inzh.; SAUKOV, A.A.; VASIL'YEV, M., inzh.; POMAZOVICH, N., prof.; GALINA, L.M., muzykoved-fol'klorist; KERSHNER, D., biolog; BUDYKO, I., prof.; SEMENOV, S., zhurnalist.

Discoveries to be made. Znan. sila 32 no.11:27-32 N '57. (MLRA 10:11)

1. Ispolnyayushchiy obyazannosti uchenogo sekretarya Glavnoy astronomicheskoy observatorii (for Rubashev). 2. Chlen-korrespondent AN SSSR (for Saukov). 3. Direktor Glavnoy geofizicheskoy observatorii im. A.I. Vovseykova (for Budyko).

(Science)

SAUKOV, A.A.; PEREL'MAN, A.I.

Geochemical methods used in the search for deposits of mineral
resources. Zap. Vses. min. ob-va 86 no.2:267-280 '57. (MLBA 10:6)
(Geochemical prospecting) (Mineralogical chemistry)

SOKOLOV, V.A., otv.red.; SAUKOV, A.A., red.; OVCHINNIKOV, I.M., red.;
KUZNETSOV, S.I., prof., red.; ALEKSEYEV, F.A., prof.; red.; GEODEKYAN,
A.A., kand.geol.-mineralog.nauk, red.; MOGILEVSKIY, G.A., kand.
geologo-mineralog.nauk, red.

[Geochemical methods of oil and gas prospecting; studies of the
conference on geochemical methods] Geokhimicheskie metody poiskov
neftnykh i gazovykh mestorozhdenii; trudy soveshchaniia po geo-
khimicheskim metodam, Moskva, aprel' 1958 g. (MIRA 12:12)

1. Akademiya nauk SSSR. Institut geologii i razrabotki goryuchikh
iskopayemykh. 2. Chlen-korrespondent AN SSSR (for Saukov).
(Geochemical prospecting) (Oil fields) (Gas, Natural)

26-58-2-2/48

AUTHOR: Saukov, A.A., Corresponding Member of the Academy of Sciences of the USSR, Moscow

TITLE: The Evolution of Geochemical Conditions in the History of Earth (Evolutsiya geokhimicheskikh usloviy v istorii zemli)

PERIODICAL: Priroda, 1958, Nr 2, pp 10-16 (USSR)

ABSTRACT: The author deals with the migration of chemical elements in the Earth's history and the various factors which can and have effected this process. With the gradual decrease in the amount of radioactive elements, the amount of radiogenic heat from the Earth decreased considerably. Five billion years ago the abundance of radiogenic heat greatly intensified the processes of thermal metamorphosis, characteristic of the pre-Cambrian period. Changes take place in absolute and relative amounts of the Earth's chemical content of elements, e.g. stable products of decay are formed from radioactive elements. Biological processes are of great importance in the migration of chemical elements. Organisms concentrate and disperse chemical elements and create new associations of them, e.g. the accumulation of carbon in coal, oil, carbonaceous shale and biogenic carbonate rocks. They also have an indirect effect as oxidizers and

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26-58-2-2/48

The Evolution of Geochemical Conditions in the History of Earth

reducers. Organisms and organic matter have probably played a large part in the concentration of such ores as vanadium, molybdenum, uranium, lead, copper, cobalt, etc. With the appearance of green plants, the first free oxygen was released into the atmosphere as a result of photosynthesis, with great effect on chemical migration. Iron, previously found in the sea in the form of a ferrous bicarbonate, soluble in water, was oxydized when free oxygen could penetrate to it. The resulting oxide was very insoluble in water so sedimentation took place. Man, when he appeared, affected the organic and geographic world of plants and animals and through that the direction and intensity of chemical migration. This effect was brought about through man's mining, technological, agricultural and engineering activities. By obtaining and using chemical elements, he disturbs the natural paragenesis of the elements and creates new element associations. In the future, man will be more and more concerned with the dressing of poor ores, e.g. the ashes of coal for aluminum, cobalt, scandium, germanium, carbonaceous clay shales for vanadium, lead, molybdenum, uranium, cobalt, copper, extracting sodium, magnesium, chlorine and rare elements from sea and lake water. In conclusion, the author

Card 2/3

26-58-2-2/48

The Evolution of Geochemical Conditions in the History of Earth

states that a quantitative and qualitative change has taken place in the course of history in the factors affecting the migration of elements and through this a basic change in the geochemical processes. He calls for a study of these changes and advocates the formation of a special branch of science to be named "historical geochemistry".

There are 1 diagram, 1 table, and 8 references, 7 of which are Soviet.

ASSOCIATION: Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii Akademii nauk SSSR, Moskva (Institute of the Geology of Ore Deposits, Petrography, Mineralogy, and Geochemistry of the USSR Academy of Sciences, Moscow)

Card 3/3

1. Earth--History 2. Geochemical--applications

30-58-3-3/45

AUTHOR: Saukov, A. A., Corresponding Member, Academy of Sciences, USSR

TITLE: Actual Problems of Geochemistry (Aktual'nyye zadachi geokhimii)
On the Further Development of Geochemical Methods of Ore
Searching (O dal'neyshem razvitii geokhimicheskikh metodov
poiskov rud)

PERIODICAL: Vestnik Akademii Nauk SSSR, 1958, Nr 3, pp.29-32 (USSR)

ABSTRACT: The search for mineral resources is at present principally directed to the discovery of localities situated deep in the earth. Their existence can be determined at the beginning only on the strength of indirect symptoms which accompany these localities and which appear on the earth's surface. The geochemical method which is based on the recognition and interpretation of the so-called aureole of dispersion of the chemical elements, can be applied in these cases. Those aureoles are formed in the vicinity of the localities in the surrounding rocks, the soil, the waters, the air and the plants; they distinguish by an abnormal high content of the searched elements and appear as consequence of their migration, either during the formation of these localities (primary aureole

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Actual Problems of Geochemistry. On the Further Development of Geochemical Methods of Ore Searching

of dispersion), or after their formation (secondary aureole of dispersion) respectively. The theory of the migration of chemical elements which was dealt with in the works by V. I. Vernadskiy, A. Ye. Fersman, S. S. Smirnov, B. B. Polynov and others, must be considered as theoretical basis of the methods of searching aureoles. The following geochemical methods of searching come forward at present: the metallometric one, the hydrogeochemical one and the absorption of gas. The metallometric test works were commenced already before the war by N. I. Sofronov, A. P. Solovov and others. The hydrogeochemical method was developed only recently by A. A. Brodskiy, A. I. Germanov, A. A. Saukov and others, and has very promising prospects. Both Soviet and foreign practice showed that this method can be successfully applied with the search for localities of hydrogen elements, as copper, molybdenum, lead, zinc, uranium, nickel, cobalt, sulfides and mineral oil. The works by A. P. Vinogradov and D. P. Malyuga played an important part with the creation of the biogeochemical searching methods. The gas absorption which was developed by V. A. Sokolov and others, is applied for the discovery of

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gas-dispersion aureoles of mineral oil, natural gases, uranium and thorium. The following problems for the development of geochemical searching methods are given:

- 1) The complex investigation of different aureoles of dispersion of elements beside localities of mineral resources.
- 2) The investigation of diffusion- and effusion-phenomena of gases by different rocks and also of the solubility of these gases in various natural waters.
- 3) The theoretical elaboration of the basis of a geochemical regional classification of the territory of the USSR.
- 4) The elaboration of the problem of indicating elements, the geochemical indicators.

The Institutes of AS USSR and the AS of the Republics of the Soviet Union and in first place the Institute for Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, as well as the Institute for Geology of the Ore Collecting Localities, Petrography, Mineralogy and Geochemistry where the works are

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Methods of Ore Searching

carried out on a very small scale for the time being, are
assigned to play an important part with the elaboration of
theoretical principles of the geochemical searching methods.

Card 4/4

AUTHOR: Saukov, A. A. SOV/7-58-6-15/16

TITLE: Chronicle - All Union Conference on Geochemical and Radiometric Methods of Search and Prospecting for Petroleum and Natural Gas Deposits (Khronika - Vsesoyuznoye soveshchaniye po geokhimicheskim i radiometricheskim metodam poiskov i razvedki neftyanykh i gazovykh mestorozhdenii) II

PERIODICAL: Geokhimiya, 1958, Nr 6, pp 610 - 611 (USSR)

ABSTRACT: A survey was given by the reports by B. P. Yasenev "Results and efficiency of gas surveying in the USSR" and by Yu. M. Yurevskiy "Development of gas-core sampling by electrical means in the USSR". In the resolution the members of the conference pointed out the importance of geochemical and radiometric prospecting methods for the solution of the main task set by party and government: An increase of the production of petroleum to 350 - 400 million tons within the next 15 years and an increase of the production of gas to 200 - 320 billion m³ per year. A number of shortcomings in organization, theoretical problems and equipment were found. For future development

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Chronicle - All Union Conference on Geochemical
and Radiometric Methods of Search and Prospecting for
Petroleum and Natural Gas Deposits. II

SOV/7-59-6-15/16

and improvement the members of the conference suggested a number of measures, among them the establishment of a special coordination committee at the Otdeleniye geologo-geograficheskikh nauk AN SSSR (Department of Geological and Geographical Sciences, AS USSR). Representatives of the Ministerstvo geologii i okhrany nedr SSSR (Ministry of Geology and Protection of Natural Resources) of the Gosplan SSSR and the Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR (State Scientific and Technical Committee of the Council of Ministers of the USSR) will be present in this committee

Card 2/2

SAUKOV, A.A.

AUTHOR: Sokolov, V. A., Professor SCV/ 30-58-7-36/49

TITLE: Geochemical and Radiometrical Methods of Search and Prospecting for Deposits (Geokhimicheskiye i radiometricheskiye metody poiskov i razvedki mestorozhdeniy) Transactions of the Conference in the Department of Geological and Geographical Sciences (Soveshchaniye v otdelenii geologo-geograficheskikh nauk)

PERIODICAL: Vestnik Akademii nauk SSSR, 1958, Nr 7, pp. 125 - 126 (USSR)

ABSTRACT: This conference took place April 21st to April 26th. Apart from the members of the academic and scientific branch research institutes representatives of the geological research institutes, of the economic councils of the Gosplan, of the State Committee of New Technology (Gosudarstvennyy komitet po novoy tekhnike), of the Ministry of Geology and Protection of Mineral Resources (Ministerstvo geologii i okhrany nedr) participated as well as scientists from the countries of the people's democracies. The Member, Academy of Sciences, USSR, D.I.Shcherbakov opened the conference. Further reports were delivered by: 1) A.A.Saukov, Corresponding Member of the AS USSR investigated geochemical prospecting methods. 2) V.A.Sokolov analysed the scientific

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Geochemical and Radiometrical Methods of Search and Prospecting for Deposits. Transactions of the Conference in the Department of Geological and Geographical Sciences

foundations of geochemical prospecting methods and of the prospecting for gas and mineral oils.

3) S.I.Kuznetsov spoke about microbiological prospecting methods of deposits of mineral oil and gas.

4) F.A.Alekseyev reported on the radiometrical prospecting methods of deposits of mineral oil and gas.

5) A.I.Silin-Bekchurin spoke about the movements of deep ground waters and

6) A.B.Ronov about organic carbon in sedimentary rocks of the Russian Plain (Russkaya platforma)

7) G.A.Mogilevskiy outlined the present state of the problem concerning the bacteriological anomalies of gas.

8) Ye.A.Bars reported on results of hydrochemical research work obtained in the course of prospecting for mineral oil.

9) V.A.Kovda and P.S.Slavin reported on geochemical soil data concerning the mineral oil and gas content.

10) V.N.Florovskaya spoke about the luminescence method for the purpose of investigation and prospecting for deposits of mineral oil and gas.

11) M.S.Gurevich gave a report on the importance of the geochemical

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Prospecting for Deposits. Transactions of the Conference in the Department
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zones of ground water for mineral oil prospecting.

12)V.A.Sokolov, N.M.Turkel'taub and A.A.Zhukhovitskiy spoke
about gasanalytical methods and apparatus for geochemical research.

13)B.P.Yasenev and Yu.M.Yurovskiy reported on gas surveying work
in the northern Caucasus (Severnnyy Kavkaz).

14)A.Ya.Krems, G.G.Grigor'yev and A.S.Medvedev spoke about the
experimental application of geochemical methods of prospecting
on the territory of the province of Timano-Pechorsk which is rich in
mineral oil and natural gas.

15)I.A.Petersil'ye reported on work dealing with gas-containing
intrusive massives of the Kola peninsula (Kol'skiy poluostrov).

16)Ye.M.Geller investigated some problems of the geochemical
finding of gas and mineral-oil-containing deposits in the rock.

17)V.N.Kortsenshteyn spoke about the mechanism of gas deposit
formation in the region of Stavropol'.

18)A.L.Geodekyan and G.A.Mogilevskiy gave a survey on research
work in the field of geochemical methods carried out abroad.

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Geochemical and Radiometrical Methods of Search and 30-58-7-36/49
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of Geological and Geographical Sciences

Furthermore, reports by foreign participants from the German Democratic Republic, Roumania (Rumyniya), Poland (Pol'sha), Czechoslovakia (Chekhoslovakiya) and Hungary (Vengriya) were heard. The conference found that the theoretical work is carried out on an insufficiently wide scope and that a number of problems is still little investigated. The methods of investigation are practically still insufficiently used. The decisions of the members contain advice for the future.

Card 4/4

AUTHOR: Saukov, A.A., Corresponding Member, AS USSR SOV/26-59-2-32/53

TITLE: Commemoration of A.Ye. Fersman (Pamyati A.Ye. Fersmana)

PERIODICAL: Priroda, 1959, Nr 2, p 106 (USSR)

ABSTRACT: The author reports on the meeting held on 23 December 1958 at the Presidium of the USSR Academy of Sciences to honor the memory of A. Ye. Fersman. The gathering was presided over by Academician D.I. Shcherbakov. He and Associate Members of the AS USSR A.A. Saukov and V.I. Smirnov, Doctors of Sciences G. P. Barsanov and B.A. Fedorovich, outlined the scientific activities of A.Ye. Fersman in the fields of geochemistry, mineralogy, geography and domestic mineral resources. In addition to the titles and contents of some of Fersman's books, the author points out that Fersman was a disciple of V.I. Vernadskiy and has devoted important parts of his research activities to the natural riches of the Kola

Card 1/2

VINOGRADOV, A.P., otv.red.; SAUKOV, A.A., red.; VLASOV, K.A., red.;
SHCHERBINA, V.V., red.; KHITAROV, N.I., red.; OVCHINNIKOVA, S.V.,
red.izd-va; BYKOVA, V.V., tekhn.red.

[Geochemical cycles] Geokhimicheskie tsikly. Moskva, Gos.
nauchno-tekhn.izd-vo lit-ry po geol. i okhrane neдр, 1960.
186 p. (MIRA 14:3)

1. International Geological Congress. 21st, Copenhagen, 1960.
(Geochemistry--Congresses)

SAUKOV, A.A.

Some notes on hydrothermal solutions and hydrothermal ore deposits.
Trudy IGEM no.46:77-82 '60. (MIRA 14:1)
(Ore deposits)

GUREVICH, M.G.; KATS, G.V.; OVCHINNIKOV, I.M.; SAUKOV, A.A.

Materials on geochemical characteristics of natural gases associated
with ore deposits of the Caucasus. Trudy IGEM no.46:83-91 '60.
(MIRA 14:1)

(Ore deposits)

(Caucasus—Gas, Natural)

SAUKOV, A. A.; BORISENOK, L. A.

"Geochemical cycle of gallium"

Paper submitted at the International Geological Congress XXI Session -
1960 (Reports of Soviet Geologists) Problem No. 1, 15-24 Aug. 61

.SAUKOV, Aleksandr Aleksandrovich;BORISOVSKAYA, M.A., red.; MAZEL', Ye.I.
tekhn. red.

[Radioactive elements of the earth] Radioaktivnye elementy Zemli.
Moskva, Gos.izd-vo lit-ry v oblasti atomnoi nauki i tekhniki,
1961. 158 p. (MIRA 1':12)

1. Chlen-korrespondent AN SSSR (for Saukov).
(Radioactive substances)

VEY DYU-IN' [Wei Tiu-yin]; SAUKOV, A.A.

Physicochemical conditions of the genesis of antimony deposits
[w.s.i.E.]. Geokhimiia no.6:480-485 '61. (MIRA 14:6)

1. Chair of Geochemistry, Moscow State University.
(Antimony ores)

SAUKOV, A. A.

Evolution of the factors determining the migration of the elements
in the ~~history~~ of geology. ~~Annals~~ geol geogr 15 no.4:3-18 O-D '61.

(Geology)

SAUKOV, A.A.

Evolution of factors in the migration of elements in geological history. Izv. AN SSSR. Ser. geol. 26 no.5:3-16 My '61.

(MIRA 14:5)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i goekhimi: 'N SSSR, Moskva.
(Geochemistry)

SAUKOV, A.A.

Thirteenth All-Pakistan Scientific Conference. Vest. AN SSSR 31
no. 6:82-83 Je '61. (MIRA 14:6)

1. Chlen-korrespondent AN SSSR.
(Pakistan--Science)

SAUKOV, A.A.; PEREL'MAN, A.I., doktor geol.-mineral.nauk

Geochemistry of our time; current problems of its application in
the national economy. Priroda 50 no.10:59-66 0 '61.
(MIRA 14:9)

1. Chlen-korrespondent AN SSSR (for Saukov).
(Geochemistry)

KUZNETSOVA, V.V.; SAUKOV, A.A.

Occurrences of molybdenum and rhenium in coals of Central
Asia. Geokhimiia no.9:750-756 '61. (MIRA 15:2)

1. Department of Geochemistry, M.V. Lomonosov State
University, Moscow.

(Asia, Central—Molybdenum)

(Asia, Central—Rhenium)

SAUKOV, A. A.

Chemistry of the earth in the past and present. Khim. v shkole
17 no.4:3-14 J1-Ag '62. (MIRA 15:10)

1. Chlen-korrespondent AN SSSR.

(Geochemistry)

SAUKOV, A.A. (Moskva)

"Geochemistry of the landscape" by A.I. Perel'man. Reviewed by
A.A. Saukov. Priroda 51 no.2:124-125 F '62. (MIRA 15:2)

1. Chlen-korrespondent AN SSSR.
(Geochemistry)
(Perel'man, A.I.)

SAUKOV, A.A.

The 14th congress of miners and metallurgists of the German Democratic Republic. Vest. AN SSSR 32 no.11:122-123 N '62.
(MIRA 15:11)

1. Chlen-korrespondent AN SSSR.
(Germany, East—Mining engineering—Congresses)
(Germany, East—Metallurgy—Congresses)

SAUKOV, A.A.; AYDIN'YAN, N.Kh.; VINOGRADOV, V.I.

Migration of mercury in the supergene zone. Trudy IGEM no.70:
20-29 '62. (MIRA 15:9)

(Mercury) (Geochemistry)

SAUKOV, A.A.

V.I. Vernadskii and the radioactivity of the earth. Izv. AN SSSR.
Ser.geol. 28 no.3:10-18 Mr '63. (MIRA 16:2)

1. Institut geologii rudnykh mestorozhdeniy, petrografii,
mineralogii i geokhimii AN SSSR, Moskva.
(Radioactivity)

OZEROVA, Nina Aleksandrovna; SAUKOV, A.A., otv.red.; SOLODOV, N.A., red.izd-va;
UI'YANOVA, O.G., tekhn.red.; YEGOROVA, N.F., tekhn.red.

[Primary dispersion halos of mercury] Pervichnye oreoly rasseianiia
rtuti. Moskva. Izd-vo Akad.nauk SSSR. 1962. 134 p. (Akademiia nauk
SSSR. Institute geologii rudnykh mestorozhdenii, petrografii,
mineralogii i geokhimii. Trudy, no.72) (MIRA 15:12)

1. Chlen-korrespondent AN SSSR (for Saukov).
(Mercury)

SAUKOV, Aleksandr Aleksandrovich; VALYASHKO, M.G., red.; KARPOVA,
I.S., red.; YERMAKOV, M.S., tekhn. red.

[Methods of geochemical prospecting for mineral deposits]
Geokhimicheskie metody poiskov mestorozhdenii poleznykh
iskopaemykh. Moskva, Mosk. gos. univ., 1963. 248 p.
(MIRA 17:2)

SAUKOV, A.A.

Visit to British geochemists. Vest.AN SSSR 33 no.2:92-95 F '63.
(MIRA 16:2)

1. Chlen-korrespondent AN SSSR.
(Great Britain—Geochemical research)

SAUKOV, A.A.; GINZBURG, I.I.; PEREL'MAN, A.I.; AYDIN'YAN, N.Kh.;
SHARKOV, Yu.V.

Vladimir Ivanovich Krasnikov; obituary. Leol. rud. mestorozh.
5 no.2:141-142 Mr-Ap '63. (MIRA 16:6)

(Krasnikov, Vladimir Ivanovich, 1907-1962)

SAUKOV, A.A.

Meetings with V.I.Vernadskii. Ozh.po ist.geol.znan. no.11:72-77
'63. (MIRA 16:7)
(Vernadskii, Vladimir Ivanovich, 1863-1945)

VLASOV, K.A.; BELOV, N.V.; VOL'FSON, F.I.; GENKIN, A.D.; GINZBURG, A.I.;
LUKIN, L.I.; KORZHINSKIY, D.S.; SALTYSOVA, V.S.; SAUKOV, A.A.;
SOKOLOV, G.A.; SHCHERBAKOV, D.I.; SHADLUN, T.N.

Konstantin . . . nomovich Nenadkevich, 1830-1963; obituary. Geol.
rud. mestorozh. 6 no.1:123-125 Ja-F '64.

(MIRA 17:11)

SAUKOV, A.A. [deceased]

The future as seen by a geochemist. Priroda 54 no.1:12-24

Ja '65.

(MIRA 18:2)

1. Onlen-korrespondent AN SSSR.

SAUKOV, A.A. [deceased]; BOGOMOLOV, G.V.; BUYALOV, N.I.; DORTMAN, N.B.

Reviews. Sov. geol. 8 no.2:159-163 F '65.

(MIRA 18:12)

SAUKOV, A.A. [deceased]

Unforgettable years...; Sketches of the life and character
of Aleksandr Evgen'evich Fersman. Priroda 55 no.1:81-91
Ja '66.

(MIRA 19:1)

1. Chlen-korrespondent AN SSSR.

SAUKOV, A.I.

AUTHOR DAVIDENKO, V.A., POGREBOV, A.I., SAUKOV, A.I., FA - 2729
 TITLE The Determination of the Shape of the Excitatory Curve of the
 Reaction $T(d,n)He^4$.
 (Opredeleniye formy krivoy vozbuzhdeniya reaktsii $T(d,n)He^4$ - Russian)
 PERIODICAL Atomnaya Energiya, 1957, Vol 2, Nr 4, pp 386-388, (U.S.S.R.)
 Received 5/1957 Reviewed 6/1957
 ABSTRACT In the investigations described in the paper under review, the deuterium
 ions were accelerated by means of an acceleration tube with magnetic
 analyzer. The measurements were carried out in thick and thin zirconium-
 tritium targets at deuteron energies of 40 to 225 keV. The thick tar-
 gets were made of zirconium foils of a thickness of 0.02 to 0.05 mm.
 The zirconium foil used for making thin targets contained radioactive
 zirconium (Zr^{95}). The targets were vaporized in vacuum upon a zirconium
 foundation. The targets were saturated with tritium in a vacuum chamber
 with a tritium pressure of 20 to 30 mm of mercury. The present paper
 contains a short description of how this saturation was carried out.
 The measurements were carried out with two targets of a thickness of
 0.01 ± 0.003 micron and 0.012 ± 0.003 micron respectively. The neutron
 current produced at the reaction $T(d,n)He^4$ was measured by means of
 threshold-value indicators of copper. The β -activity of the indicator
 was measured with the aid of thin aluminum counters. The curve of out-
 put $N = f(E)$ has a point of inflection, after which the gradient of the
 curve rapidly decreases. Therefore the differentiation may lead to con-
 siderable errors. For this reason, the data which were obtained with

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ACCESSION NR: AP4000438

S/0089/63/015/005/0411/0413

AUTHOR: Oparin, Ye. M.; Saukov, A. I.; Shuvalov, R. S.

TITLE: Inelastic scattering of neutrons with an energy of 14 Mev by light nuclei

SOURCE: Atomnaya energiya, v. 15, no. 5, 1963, 411-413

TOPIC TAGS: inelastic neutron scattering, fast neutron spectrum, light nucleus, neutron passage, beryllium, lithium, boron, carbon, nitrogen, oxygen, time of flight technique, plastic scintillator, neutron cross section, reactor shielding, radiation shielding, neutron, scintillation counter, neutron passage through beryllium, neutron passage through lithium, neutron passage through boron, neutron passage through carbon, neutron passage through nitrogen, neutron passage through oxygen

ABSTRACT: The spectra of inelastically scattered neutrons for lithium, beryllium, boron, carbon, nitrogen, and oxygen at the incident neutron energy of 14 Mev were investigated with the time-of-flight method (see Fig. 1 of Enclosure). A plastic scintillator, measuring

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ACCESSION NR: AP4000438

100 mm both in height and in diameter, with a FEU-36 photomultiplier served as the neutron detector. The resolving time of the equipment (2τ), measured by the gamma peak, is equal to 3.5×10^{-9} sec. During neutron recording, this time increased to 5.4×10^{-9} sec. Specimens of the following compounds measuring $60 \times 100 \times 100$ mm were investigated: lithium hydride (LiH), beryllium, carbon (graphite), boron carbide (B_4C), melamine ($\text{C}_6\text{H}_6\text{N}_6$), and water. Since the measurements were carried out at an angle of 90° to the initial neutron beam, the presence of hydrogen in the investigated compounds had no significant effect on the measurement results. Because of the insufficient resolving power of the measuring equipment, the discrimination between peaks of elastically and inelastically scattered neutrons was obtained using additional data from "Nuclear Physics," V, 11 (1959). Solid lines in graphs a and b of Fig. 1 represent the spectra of inelastically scattered neutrons calculated from Maxwellian distribution at the temperature $T = 2E_{av}$. The data obtained may be useful in calculations of neutron passage through thick layers of materials. Orig. art. has: 2 figures, 1 table, and 1 formula.

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L 51070-65 EWF(m)/EPF(c)/EPF(n)-2/EWG(m)/EPB/EPF(j) Pc-4/Pr-4/Pe-4/

Pu-4 VW/DM/RM

ACCESSION NR: AP5009123

S/0089/65/011/003/0277/0278

AUTHOR: Anisimov, I. S.; Nikitin, V. I.; Saukov, A. I.; Ugodenko, A. A.

TITLE: Total cross sections for the interaction of neutrons with benzene, toluol, and sodium acetate in the energy interval 0.03--0.5 eV

SOURCE: Atomnaya energiya, v. 18, no. 3, 1965, 277-278

TOPIC TAGS: neutron slowing down, organic moderator, benzene, toluol, sodium acetate, neutron cross section

ABSTRACT: The investigation described is of interest because the chemical bond of the hydrogen atoms in moderator molecules must be taken into account in calculations of the slowing down of neutrons with energies lower than 1 eV in hydrogen-containing moderators. The total cross sections of interaction between the neutrons and benzene, toluol, and sodium acetate was measured by the transmission method. The neutrons were produced by the $T(d, n)He^4$ reaction on a tritium target in a pulsed accelerator tube. The neutron detector was a mixture of 30% LiF enriched with Li^6 and 70% ZnS. The neutron spectra before and after passing through the investigated substances were measured by the time of flight method.

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L 51070-65

ACCESSION NR: AP5009123

The ratio of the cross sections of the bound and free hydrogen was found to be the same for all substances, and very close to that obtained elsewhere for water and benzene. The ratio can be described by the empirical formula $F(E) = 1 + 0.073/E - 0.00076/E^2$ (E - neutron energy, eV). The relative energy losses in the three substances as functions of the initial energy, per single collision, were also calculated under the assumption that the dependence of the neutron losses on the cross section is the same for the investigated substances and for water. Orig. art. has: 2 figures and 1 formula.

ASSOCIATION: None

SUBMITTED: 12Feb64

ENCL: 00

SUB CODE: NP

NR REF SOV: 002

OTHER: 006

ml
Card 2/2

SAUKOV, M. K., and DITYATKOVSKIY, Ya. M.

"Centrifugal Casting of Large Cylindrical Parts From High-Alloy Steel," p. 61. in book Mechanization and Automatic Control of Founding Processes, Leningrad, 1957, 224pp.

SAUKOV, N.P., elektromekhanik

Change in the power supply circuit of the LIG-60 generator.
Avtom., telem. i sviaz' 8 no.11:40 N '64.

(NIRA 17:12)

1. Laboratoriya signalizatsii i svyazi Severo-Kavkazskoy dzerogi.

SAUKOVA, L. A.

27183 SAUKOVA, L. A. , BERODIN, A. I. - Peremotka i Snovka Pryazhi Na Bystrokhodnykh
Mashinakh. Tekstil. Prom-St: 1949, No. 8, s. 20-21.

SO: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949.

ONIKOV, E.A., starshiy nauchnyy sotrudnik; SAUKOVA, L.A., mladshiy nauchnyy sotrudnik; GORBUNOVA, Ye.O., mladshiy nauchnyy sotrudnik

Geometric method of analysis and construction of linen weave fabrics. Tekst.prom. 24 no.1:50-55 Ja '64. (MIRA 17:3)

1. Tsentral'nyy nauchno-issledovatel'skiy institut khlopchatobumazhnoy promyshlennosti.

SAUL, B.K.

Increasing the operating range of a mobile television station. Vest.
svyazi 2⁵ no.213-10 F '65. (MIRA 18:6)

1. Glavnyy inzh. Ministerstva svyazi Estonskoy SSR.

SAULA, S.

2

3000

Determination of gold in the presence of copper and cadmium.
 Y. Lykovic and S. Saula (Bull. Soc. chim. Belgrade, 1955, 83, 468—
 474).—Low results are obtained when Au is determined, in the
 presence of Cu or Cd, by reduction with alkaline H_2O_2 . If HCl
 or H_2SO_4 is used to dissolve the CuO only 64–78% of Au is
 recovered, according to the concn. of acid. If 6% H_2SO_4 is used
 to dissolve the Cu, only 94% of Au is recovered, owing to incomplete
 coagulation. If HCl is added to the H_2SO_4 as a coagulant, slightly
 high results are obtained, due to occlusion; the error, however, is
 then less than 0.5% of the amount of Au, if the ratio Au : (Cu + Cd)
 is $\geq 1 : 3$.
 A. B. DENSHAM.

PM 12/4

SAUL'CHENKO, B., izzhener.

Machine tool for making partition slabs. Stroitel' 2 no.8:12 Ag
'56. (Concrete construction--Formwork) (MLRA 9:12)

L 37196-66 EWT(d)/EWT(m)/ENP(f)/T-2
ACC NR: AT6019148 (N)

SOURCE CODE: UR/2807/65/000/224/0057/0065

AUTHOR: Rozanov, N. S.; Saul', T. K.

ORG: None *

TITLE: Measuring temperatures in trawler diesel engine pistons

SOURCE: * Tallinn. Politekhicheskiy institut. Trudy, Seriya A, no. 224, 1965. Sudovyye silovyye ustanovki (Marine power installations) sbornik statey, no. 3, 57-65

TOPIC TAGS: temperature measurement, engine piston, diesel engine, thermocouple, heat of combustion, engine test stand

ABSTRACT: A method is proposed for measuring temperatures in trawler diesel engine pistons. Two types of temperature measurement must be considered in studying the thermal stresses of a piston: 1. determining the temperature on the outer surface of the piston head for studying the heat exchange between the gases and the head, and 2. determining the temperature at some depth from the surface in contact with the gases, where temperature variation is relatively low. Two methods are proposed for carrying out the second type of measurement: "fuses" and thermocouples. Simpler methods are discussed such as measuring the temperature of a piston with respect to its cooling curve and others. The "fuse" method is based on using pure metals and alloys whose melting points are known. By using these "fuses", maximum piston temperature can be

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determined to an accuracy of 10-50°C in a temperature range of 120-950°C. The principal disadvantages of this method are the requirements for opening the engine and narrowing the fusion temperature range, while the main advantage is the absence of mechanical and electrical connections for registering temperature. The main advantage of the thermocouple method is the ability to take measurements at various points under varying operating conditions. The thermocouple method was employed for measuring the temperature of the piston head and the "fuse" method was used to verify the results. Since both continuous and periodic connections with registering equipment can be used in the case of the thermocouple method, the periodic connection was selected. A figure is given showing the temperature measuring equipment. The results show that the thermocouple method, as tested on the 8HFD24 diesel engine, is fully reliable and accurate. The engine functioned for 250 hours together with the thermocouple measuring apparatus on a test stand under varying conditions. No measurement errors were observed during this time. The thermocouple temperature measuring equipment can be recommended as reliable for use over long periods of testing. This method has also been used for taking piston temperature measurements on other engines. Orig. art. has: 6 figures.

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